

CITY OF BRYAN

JOB DESCRIPTION – 2309

Working Title: ENGINEERING TECHNICIAN

Career Ladder: TECHNICAL OPERATIONS

Department: ENGINEERING

Level: 230 - 240

SUMMARY AND PRIMARY FUNCTION

Under the direction of the Assistant City Engineer, performs responsible higher-level, sub-professional work in support of municipal engineering and planning activities. Prepares infrastructure construction plans, maps, charts, graphs, graphic illustrations using CAD/GIS software, Microsoft applications and also by both pencil and ink. This position is one of three positions in the Engineering Department responsible for maintaining the GIS mapping and databases for the City's public infrastructure.

PRIMARY DUTIES

- 1) Create Microstation or AutoCAD based construction drawings for Capital Improvement Projects
 - a) Works closely with various Project Engineers in developing construction drawings
 - b) Utilizes mastery of Microstation or AutoCAD software to efficiently create new plan and profile drawings or construction details specific to each design project
 - c) Uses knowledge of city's existing infrastructure to create an accurate digital picture of existing conditions
 - d) Creates accurate design drawings from raw electronic field survey data
 - e) Takes specific or broad direction from engineers in preparation of plans
- 2) Create Presentation drawings and maps for a variety of meetings
 - a) Plot large maps, banners and other drawings primarily using ARCMAP but could include using CAD(Microstation or AutoCAD)
 - b) Professionally mount on foam board these maps for presentations to Council and other meetings
 - c) Hand draft and utilize other creative means as needed for these presentation boards
 - d) Prints customized maps of public infrastructure using ARCMAP and CAD software for walk-in customers
- 3) Maintain and archiving infrastructure as-built drawings, construction details and location maps including the input of this information into the City's GIS via ARCMAP
 - a) Annually revises construction details in Microstation or AutoCAD
 - b) Create new construction details as needed based on direction from Engineers
 - c) Creates reproducible as-built drawings from field marked construction plans
 - d) Updates infrastructure maps and databases (water, sewer, storm, streets, floodplains, etc.) from as-built plans
 - e) Plots reproducible mylar as-built drawings
 - f) Electronically and physically archives this information
 - g) Convert data between CAD platforms (Microstation, AutoCAD, GIS)

EDUCATION AND EXPERIENCE

High school diploma or equivalent.

Specialized training in Microstation or AutoCAD and ARCMAP equivalent to the "Journeyman" level.

Minimum of 3-5 years performing work in related areas of responsibility.

Minimum 2 years drafting experience in civil engineering or GIS-related field using Microstation and/or Auto-CAD preferred.

Associate's degree in related field preferred.

Microstation experience preferred.

Equivalent combinations of education and related experience may be considered.

KNOWLEDGE, SKILLS AND ABILITIES

Specialized training in Microstation or AutoCAD and ARCMAP.

Technical proficiency in computerized and manual drafting techniques plus general understanding of basic civil engineering principles and theories.

Demonstrated proficiency in use of the tools and equipment appropriate to job responsibilities.

Ability to follow verbal instructions or detailed written procedures.

Ability to understand engineering terms and concepts.

Ability to perform work based upon broad instructions and general supervision.

Ability to orient oneself on a map.

Ability to make mathematical calculations and engineering computations and to interpret survey field notes and sketches.

SPECIAL REQUIREMENTS AND LICENSES

Texas Class C driver's license with a good driving record as measured by the City's evaluation system.

EQUIPMENT

Microsoft based computer work station, computer plotters, large format copy machine, regular copier, drafting equipment, and telephone. Software used includes Word, Excel, PowerPoint, Outlook, Internet Explorer, Access, Microstation or AutoCAD and ARCMAP.

Work shall be performed with tools, appliances and equipment approved by those agencies and bodies that have control, authority or approval of the design working ranges or limitations of those items; the employee has the responsibility to conform to those ranges and limitations.